

DAILY HOMEWORK QUIZ

For use after Lesson 2.2, pages 60–66

1. In the figure at the right, \overrightarrow{BD} bisects $\angle ABC$. Find $m\angle ABD$ and $m\angle DBC$.

$154 \div 2 = 77^\circ$

2. In the figure at the right, \overrightarrow{HL} bisects $\angle GHJ$. Find $m\angle DHL$ and $m\angle LKJ$. Then determine whether $\angle GHJ$ is acute, right, obtuse, or straight.

$m\angle GHJ = 128$

3. \overrightarrow{QS} bisects $\angle PQR$. Find the value of the variable.

$5x - 3 = 32$
 $5x = 35$
 $x = 7$

$9y = 90$
 $y = 10$

$9y = 8y + 10$
 $9y - 8y = 10$
 $y = 10$

QUIZ FRIDAY
2.1-2.4

Sep 18-2:54 PM

Oct 3-12:52 PM

2-3 Complementary and Supplementary Angles

Complementary angles-2 angles whose sum is 90°

Supplementary angles-2 angles whose sum is 180°

$m\angle ABC$	30°	45°	87°	x°	5°	40°
Complement of $\angle ABC$	60°	45°	3°	85°	85°	50°
Supplement of $\angle ABC$	150°	135°	93°	180°	175°	140°

$90 - 30 = 60^\circ$
 $180 - 30 = 150^\circ$

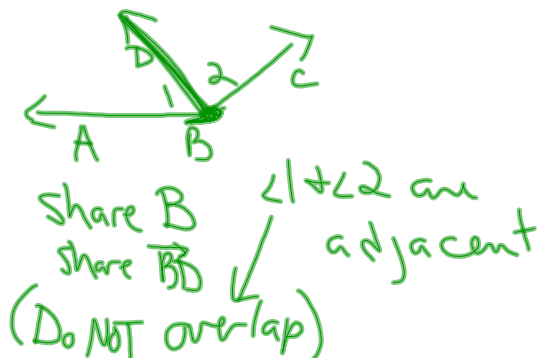
$90 - 45 = 45^\circ$
 $180 - 45 = 135^\circ$

Oct 1-8:27 AM

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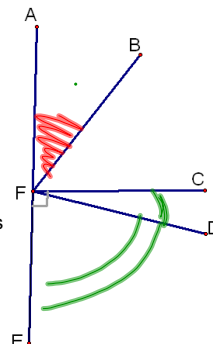
Adjacent angles-angles that share a common vertex and side, but have no common interior points.



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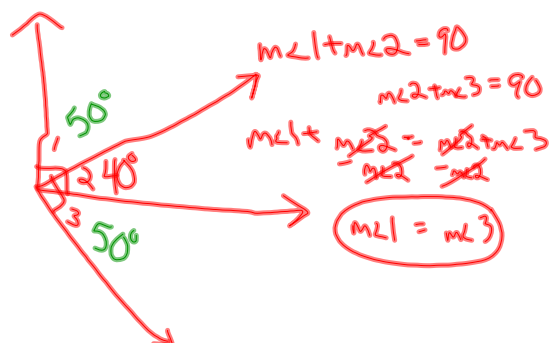
Use the picture to the right.
Name the following:

- $\angle BFD + \angle BFA$ 2 adjacent \angle s
 $\angle BFC + \angle BFA$ 2 complementary \angle s
 $\angle AFB + \angle BFE$ 2 supplementary \angle s
 $\angle AFC + \angle CFE$ 2 \cong supplementary \angle s



Sep 29-9:01 AM

Theorem 2.1-Congruent Complements Theorem-
Complements of the same angle are congruent



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Example:

$\angle 4$ and $\angle 5$ are complementary

$\angle 6$ and $\angle 5$ are complementary

$m\angle 4 = 42^\circ$ $m\angle 6 = \underline{42^\circ}$

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Example:

$\angle 7$ and $\angle 8$ are complementary

$\angle 9$ and $\angle 8$ are complementary

$$m\angle 7 = 55^\circ \quad m\angle 9 = \underline{55^\circ}$$

$$m\angle 8 = 35^\circ$$

Theorem 2.2-Congruent Supplements Theorem-
Supplements of the same angle are congruent

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Example:

$\angle 9$ and $\angle 10$ are supplementary

$\angle 11$ and $\angle 10$ are supplementary

$$m\angle 9 = \underline{105^\circ} \quad m\angle 11 = \underline{105^\circ}$$

$$m\angle 10 = 75^\circ$$

$$\begin{array}{r} 180 \\ - 75 \\ \hline 105 \end{array}$$

Example:

$\angle ABC$ and $\angle DEF$ are supplementary

$\angle MNO$ and $\angle DEF$ are supplementary

$$m\angle ABC = 22^\circ \quad m\angle MNO = \underline{22^\circ}$$

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Use the picture to the right.

Example 1

$$m\angle ABD = 30$$

$$m\angle CBD = 2x + 10$$

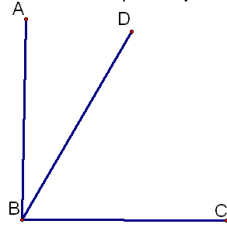
$$2x + 10 + 30 = 90$$

Example 2

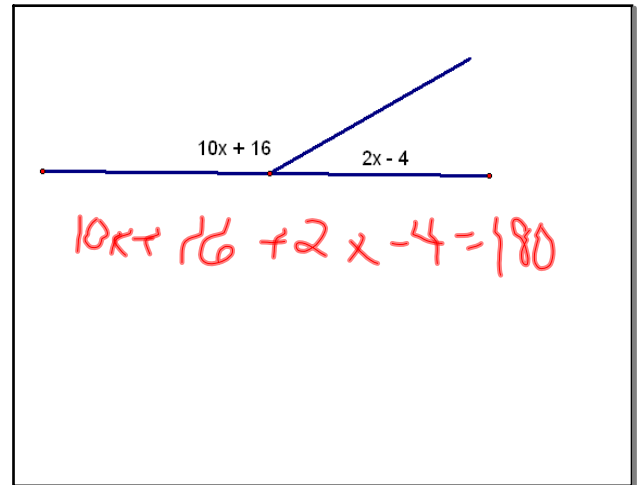
$$m\angle ABD = 7x + 1$$

$$m\angle CBD = 5x + 6$$

$\angle ABD$ and $\angle DBC$ are complementary



Sep 29-9:16 AM



$$10x + 16 + 2x - 4 = 180$$

Sep 29-9:16 AM

HW p70-73

#s 8-10, 15-25, 29-32, 35-37, 40, 41

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